

Well and Onsite Wastewater Facts

or

The things your parents forgot to tell you about living in the country

FSN - 3

Loudoun County Health Department

February 2004

Well O&M

Typically, groundwater is naturally clean and safe for consumption. Because the overlying soil acts as a filter, groundwater is usually free of disease-causing microorganisms. However, contamination may occur following improper installation of well casings or caps, after a break in the casing or as a result of contaminated surface water entering the well. Most recently wells have been found contaminated from the air that is drawn into the well when the pump is turned on and water draw down occurs. Contamination can also occur if wells are drilled in fractured bedrock without an adequate layer of protective soil and with less than the recommended minimum casing length. The karst rock called the Limestone Overlay District in Loudoun County is of particular concern because this is where surface water can travel great distances through channels created in the rock.

In order to prevent illness, wells should be properly maintained and the water regularly tested for the presence of microbial contaminants. Well water should also be tested occasionally for possible inorganic and organic chemical contaminants.

Proper siting, location, construction and maintenance of your well will help to minimize the likelihood of contamination. The well cap should be checked regularly to ensure that it is securely in place and watertight. Joints, cracks and connections in the well casing should be sealed. Pumps and pipes should also be checked on a regular basis, and any changes in water quality should be investigated. Surface drainage should be directed away from the well casing, and surface water should not collect near the well.

Well water should be tested for bacteriological quality regularly and for chemical contamination if it is suspected. In addition to regular tests, well water should be tested immediately if there is any change in its clarity, color, odor or taste, or if there has been a change in the surrounding land use. Through regular assessment and testing of drinking water, the microbial and chemical safety of your well water can be verified. The best time to sample your well water is when the probability of contamination is greatest. This is likely to be in early spring just after the thaw, after an extended dry spell, following heavy rains or after lengthy periods of non-use.

The Loudoun County Health Department (LCHD) maintains a list of "Approved Labs For Bacteriological Sampling" see reverse side. Chemical analysis testing can be done by Watercheck/National Testing Laboratories, Inc. 6151 Wilson Milles Road, Cleveland, OH 44143, telephone 800-458-3330. They have a test that is done for Loudoun County and named Loudoun Test which costs about \$200.00.

If you have experienced gastrointestinal illness and suspect that it might be associated with your well water, consult your physician and the Loudoun County Health Department.

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Wastewater Engineering and Policy Development

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Inspection of Systems

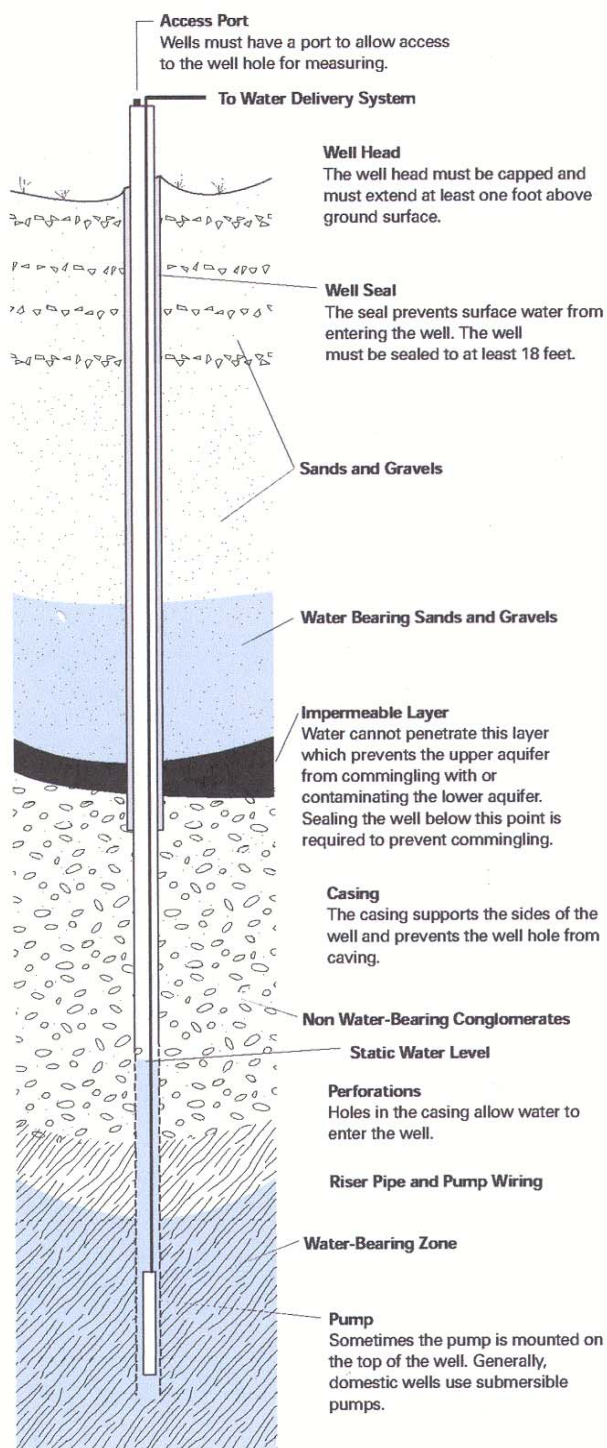
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